

# Manual Lymphatic Drainage Therapy

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*Health care providers are constantly confronted with the challenge of providing quality health care while at the same time containing escalating costs. Incorporating complementary therapies into standard health care practices can assist in escalating the healing process, enhancing general wellness, focusing on prevention, and promoting a better quality of life. This article discusses manual lymphatic drainage therapy and identifies the value of as well the indications for the therapy. A brief overview of the lymphatic system is included.*

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**H**ealth care providers are constantly confronted with the challenge of providing quality health care while at the same time containing escalating costs. Reimbursement issues also add pressure to our health care delivery system. The overall message seems clear. To manage multiple constraints, we must strive to become more innovative, comprehensive, and effective in the delivery of health care. Approaching client care in a holistic manner can assist in enhancing the healing process, promoting wellness, focusing on prevention, and promoting a better quality of life. There is a strong interest in optimizing the provision of health care through the exploration and incorporation of complementary therapy modalities that demonstrate positive client outcomes (Barnes, Powell-Griner, McFann, & Nahin, 2004; Kreitzer, Mitten, Harris, & Shandeling, 2002; Nahin & Straus, 2001). Manual lymphatic drainage therapy, which focuses on treating the lymphatic system, is one such modality to consider. This therapy originated in Europe and has slowly made its way to the United States. It is referred to by various abbreviations such as MLD (manual lymph drainage),

LDT (lymph drainage therapy), and MLT (manual lymph therapy), depending on the specific lymphatic technique that is employed. A multifaceted treatment program that incorporates the principles of compression, exercise, skin care, and preventative measures may also be added to the basic therapy in certain situations such as in the treatment of lymphedema. This program is referred to by various abbreviations such as CDP (complex decongestive physiotherapy), CPDT (complex physical decongestive therapy), CLT (complex lymphatic therapy), CDT (combined decongestive therapy) and will be discussed later. In this article, MLDT and CDP will be utilized for simplicity. These therapies may be provided in various settings such as private offices or clinics. There are various training programs available for MLDT and for those wishing to become certified lymphedema therapists. Although techniques may vary, the programs share the same expected client outcomes.

MLDT consists of specific hand positions and movements, which stimulate the lymphatic system as well as assist in redirecting and enhancing the lymphatic flow. Some practitioners attend programs where they receive specific training in manual lymphatic mapping (MLM). This is a hands-on method utilized to manually assess the specific rhythm, pressure, direction, and quality of lymphatic flow. This technique is helpful in identifying restrictions in flow as well as alternate lymphatic pathways that have been established by the body (Chikly, 2001).

Because the majority of the lymphatic system is superficial, a very light touch is utilized in providing the therapy. At times, however, varying degrees of hand pressure may be indicated. MLDT is sometimes

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referred to as massage, however this can be misleading as one generally equates massage with a heavier touch. The therapy is individualized and follows specific therapy sequences/protocols. Practitioners incorporate information from the client's medical history as well as from a physical exam to develop a treatment plan. Clients may be referred for therapy by another health care provider or may seek the therapy independently. Information concerning the lymphatic system, the therapy, and plan of care are shared with the client during the evaluation as well as during subsequent treatment sessions.

To prepare for the therapy, clients are encouraged to drink plenty of water a few days prior to the session as well as to eat lightly on the first day of their therapy. MLDT is generally provided with the client in a reclined position on a treatment table. Positioning may vary depending on specific treatment protocol as well as the body area to be treated. If the removal of clothing is necessary, the practitioner is attentive to ensuring privacy, warmth, and comfort.

Congestion of the lymphatic system may occur as a result of many factors. The following are some examples: illness; surgery; lack of exercise; bumps, bruises, and other injuries; exposure to heavy metals and toxins; tight-fitting clothing; impaired circulation; food allergies and sensitivities; and stress.

Stimulating the lymphatic system provides many beneficial effects and at the same time serves as a valuable tool in preventative health maintenance. The following outcomes have been identified:

- stimulation of the immune system by increasing the lymphatic flow in the lymph nodes
- enhancement in the movement of body fluids thereby increasing the ability to reduce edema
- increasing the elimination of wastes from the tissues
- indirect stimulation of the circulation of the body
- promotion of a sympatholytic action where there is a decrease in sympathetic response
- increase in parasympathetic response with a resultant calming effect
- reduction in muscle spasm and pain (Chikly, 2001).

Although the lymphatic system was identified in the 17th century in Europe, the health care profession remains in the early stages of understanding the role and the impact that the system has on the human body. As a result, the lymphatic system, an extensive body system, can be neglected during the assessment, plan-

<b>Sample of Indications for Manual Lymphatic Drainage Therapy</b>	
• Lymphostatic edema	• Chronic infections
• Lymphodynamic edema	• Stress
• Chronic venous insufficiency	• Chronic headache
• Burn/surgery scars	• Migraine
• Pre- and postoperative	• Chronic pain
• Wound healing	• Fibromyalgia
• Fractures	• Chronic Fatigue Syndrome
• RSDS (Reflex Sympathetic Dystrophy Syndrome)	• Pregnancy stretch marks
• Inflammatory joint disease	• Tissue detoxification
• Skin complexion/wrinkles	

ning, and intervention stages of providing client care. Thiadens (1998) stated that "Lymphology is essentially an overlooked field in medical schools in the United States, and, because of this and other important factors, medical professionals have been exposed inadequately to this poor step child of U.S. medicine" (p. 2864). In recent years, advanced medical technology has allowed for improved visualization of the lymphatic system and has therefore encouraged a more expansive study into the structure, function, and treatment of the system.

Health care providers are becoming more aware that MLDT is part of the primary treatment for lymphedema, however, the therapy can have a positive effect on many other conditions as well as play a major role in preventative health. Multiple indications for MLDT have been identified in the literature. These indications have been observed mainly in clinical practice, and unfortunately at the present time, many of them lack supportive scientific documentation (Chikly, 2001; Foldi, Foldi, & Kubil, 2003; Kasseroller, 1998). The box titled "Sample of Indications for Manual Lymph Drainage Therapy" includes a very abbreviated list of those indications.

#### **REVIEW OF FUNCTION, ANATOMY, AND PHYSIOLOGY**

To appreciate the complexity of the lymphatic system as well as understand how MLDT can be a valuable treatment modality; a review of the function, anatomy, and physiology of the lymphatic system is in order. It should be understood that the information presented



here is a brief overview. The knowledge base required for MLDT practitioners is extensive. Those practitioners maintaining lymphedema certification have received further in-depth information and training.

The lymphatic system is essentially a one-way path from the interstitial tissues back to the circulatory system. The primary functions of the system are (a) to defend the body against infection and disease by producing, maintaining, and distributing lymphocytes; (b) to facilitate the movement of excess interstitial fluid from the tissues back into the blood, thereby assisting in the maintenance of normal blood volume and preventing the development of edema; and (c) to transport substances such as nutrients, hormones, lipids, and waste products from their tissues of origin to the venous side of the circulatory system (Martini, 2001).

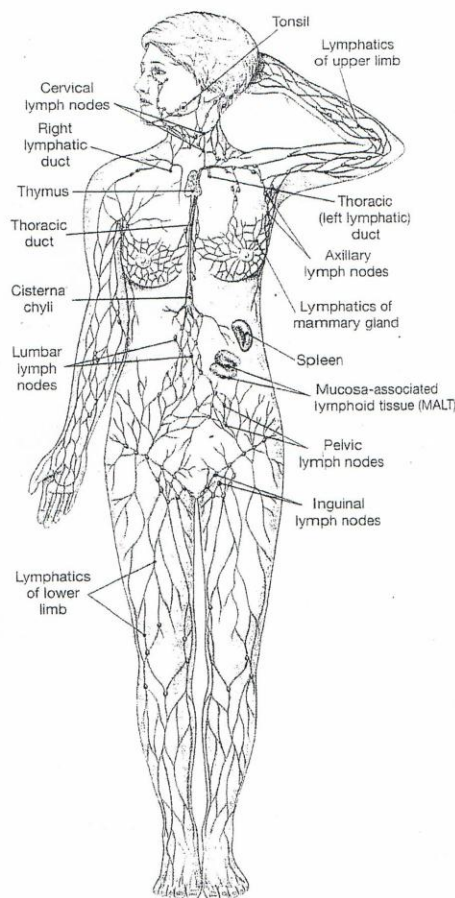
The lymphatic system consists of lymphatic vessels, lymph fluid, and lymphoid tissues and organs, however it is necessary to include some basic information about capillary exchange, as this is the process by which the lymphatic system begins to collect lymph fluid.

### Capillary Exchange

Homeostasis in body fluids is maintained as a result of a fine balance between hydrostatic pressure and osmotic pressure in the blood capillary and in the interstitium. The processes of diffusion, osmosis, filtration, and reabsorption play major roles in this fluid regulation. The manner in which these pressures and processes work together is very complex. In general, as blood flows through the blood capillaries, water and solutes move across the arteriole side of the capillary wall into the tissues as a result of the pressure of fluids against the vessel wall (blood hydrostatic pressure). The majority of this material is reabsorbed on the venule side of the capillary. Each day, however, approximately 3.6 liters of the water and solutes that have moved into the interstitial tissue enter into the lymphatic system (Martini, 2001). Proteins also leak into the tissues from the capillaries and are then returned to the circulatory system via the lymphatic system. If proteins are unable to return because of an impaired lymphatic system, these proteins attract water molecules, which results in the accumulation of fluids in the interstitial tissues (refer to Figure 1 and 2).

To provide the most effective and appropriate treatment, it is essential that the MLDT practitioner have an in-depth understanding about the specific pressures and processes that assist in regulating fluid balance. For example, when treating an impaired lymphatic system,

**FIGURE 1**  
Components of the Lymphatic System



the removal of protein molecules in the tissue is a major goal. To enhance the removal of these protein molecules from the tissues, specific manual techniques and types of external pressure are utilized to maintain therapeutic levels of hydrostatic pressure. Inappropriate application of pressure could result in removing water from the tissues without the desired protein removal. Water molecules, attracted by the remaining protein molecules, will return to the tissues thus increasing the undesired edematous state.